

Medical University of South Carolina Medical University Hospital Authority

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**Presented to: Health and Human Services
Subcommittee
House Ways and Means Committee**

Overview

- **Employees - 7,000**
- **Physicians - 750**
- **Nurses - 2,400**
- **Four Hospitals**
- **Inpatient visits - 36,114**
- **Observations - 5,629**
- **Emergency department visits - 66,736**
- **Ambulatory surgeries - 3,693**
- **Outpatient visits - 1,205,066**
- **Off-campus care settings - 120**
- **Clinical trial studies - 581 actively enrolling**
- **Operating budget - \$1.1 Billion**



U.S. News Rankings – Adult & Pediatric



Adult Programs – Top 25% in Nation

Cancer	Cardiology & heart
Diabetes and endocrinology	Geriatrics
Gastroenterology	Gynecology
Neurology and neurosurgery	Orthopaedics
Pulmonology	Urology



SC leader in 14 of the 24 Service Lines

Top 3 for all 24

	Market Leader			Second			Third			
	Hospital	2012 Market Share	2011 - 2012 Δ	Hospital	2012 Market Share	2011 - 2012 Δ	Hospital	2012 Market Share	2011 - 2012 Δ	Total # of Cases
Cancer Care - Hematology	MUSC	37.4%	↑ 3.9	Palmetto	20.1%	↓ -3.5	Greenville	17.6%	↑ 1.8	1,089
Cancer Care - Oncology	Greenville	45.1%	↑ 4.7	MUSC	36.0%	↓ -0.7	Palmetto	18.0%	↓ -3.8	567
Cardiac Care - Medical	MUSC	39.2%	↓ -4.8	Greenville	25.1%	↑ 3.8	Palmetto	22.5%	↑ 3.9	355
Cardiac Care - Surgical	MUSC	97.3%	→ 0.3	Greenville	1.7%	↑ 0.7	Palmetto	0.3%	↓ -1.6	293
Dental	MUSC	33.6%	↑ 3.8	Palmetto	19.5%	↑ 6.6	Greenville	10.2%	↓ -3.6	128
Dermatology	Palmetto Richland	35.0%	↑ 12.9	MUSC	22.0%	↓ -4.8	Greenville	11.4%	↓ -1.2	123
Endocrinology	Palmetto Richland	24.2%	→ 0.5	MUSC	23.9%	↓ -3.7	Greenville	17.6%	↑ 2.7	591
ENT	MUSC	33.6%	↑ 3.7	Palmetto	20.6%	↓ -2.7	Greenville	19.0%	↑ 5.7	457
General Pediatrics	Palmetto Richland	20.5%	↑ 2.4	MUSC	15.5%	↑ 2.7	Greenville	11.2%	→ -0.1	2,447
GI	MUSC	27.7%	↑ 3.2	Greenville	23.1%	↑ 4.0	Palmetto	23.0%	↓ -0.6	1,277
Infectious Disease - Medical	Palmetto Richland	20.7%	↑ 1.2	MUSC	17.4%	↑ 3.9	Greenville	16.0%	→ 0.4	2,388
Neonatal Care - Medical	Greenville	15.1%	→ 0.4	MUSC	8.1%	↓ -1.1	Lexington Medical	6.4%	↑ 1.2	16,207
Neonatal Care - Surgical	MUSC	35.2%	↓ -1.3	Palmetto	34.3%	↑ 5.7	Greenville	23.2%	↓ -1.7	233
Nephrology/Urology-Medical	MUSC	23.3%	*	Greenville	17.1%	*	Palmetto	15.1%	*	806
Nephrology/Urology-Surgical	MUSC	35.4%	*	Greenville	30.1%	*	Palmetto	20.7%	*	246
Neurology	MUSC	36.9%	↑ 5.0	Palmetto	27.5%	↓ -2.1	Greenville	20.0%	↑ 0.8	1,183
Neurosurgery	MUSC	36.7%	↓ -4.0	Palmetto	29.2%	→ 0.4	Greenville	28.1%	↑ 2.9	281
Ophthalmology	MUSC	32.1%	↑ 1.0	Palmetto	24.1%	→ -0.4	Greenville	10.2%	↓ -0.9	137
Orthopedics	Palmetto Richland	31.0%	↑ 2.6	MUSC	23.3%	↑ 1.2	Greenville	14.3%	→ 0.0	1,401
Peds Surgery	Greenville	23.5%	↑ 2.9	Palmetto	22.7%	↑ 1.5	MUSC	21.1%	↓ -1.8	1,605
Respiratory services- Medical	Palmetto Richland	16.8%	↑ 0.9	MUSC	12.8%	↑ 1.4	Greenville	7.4%	↓ -1.1	5,463
Rheumatology	MUSC	43.5%	↑ 5.8	Palmetto	25.8%	↑ 5.1	Greenville	9.7%	↓ -8.8	124
Trauma care- Medical	Palmetto Richland	24.6%	↑ 0.9	MUSC	23.6%	↑ 1.7	Greenville	17.2%	→ -0.4	647
Trauma care- Surgical	MUSC	29.0%	↑ 2.7	Palmetto	25.9%	↑ 3.4	Greenville	19.7%	→ -0.4	259
Overall	MUSC	16.9%	→ 0.4	Greenville	15.5%	↑ 0.5	Palmetto	14.8%	→ 0.4	38,489

*Note: Service lines listed include those with greater than 100 cases, the total includes all

New Children's Hospital & Women's Pavilion



Rendering purposes only. Subject for approval.



THANK YOU!

\$25,000,000!



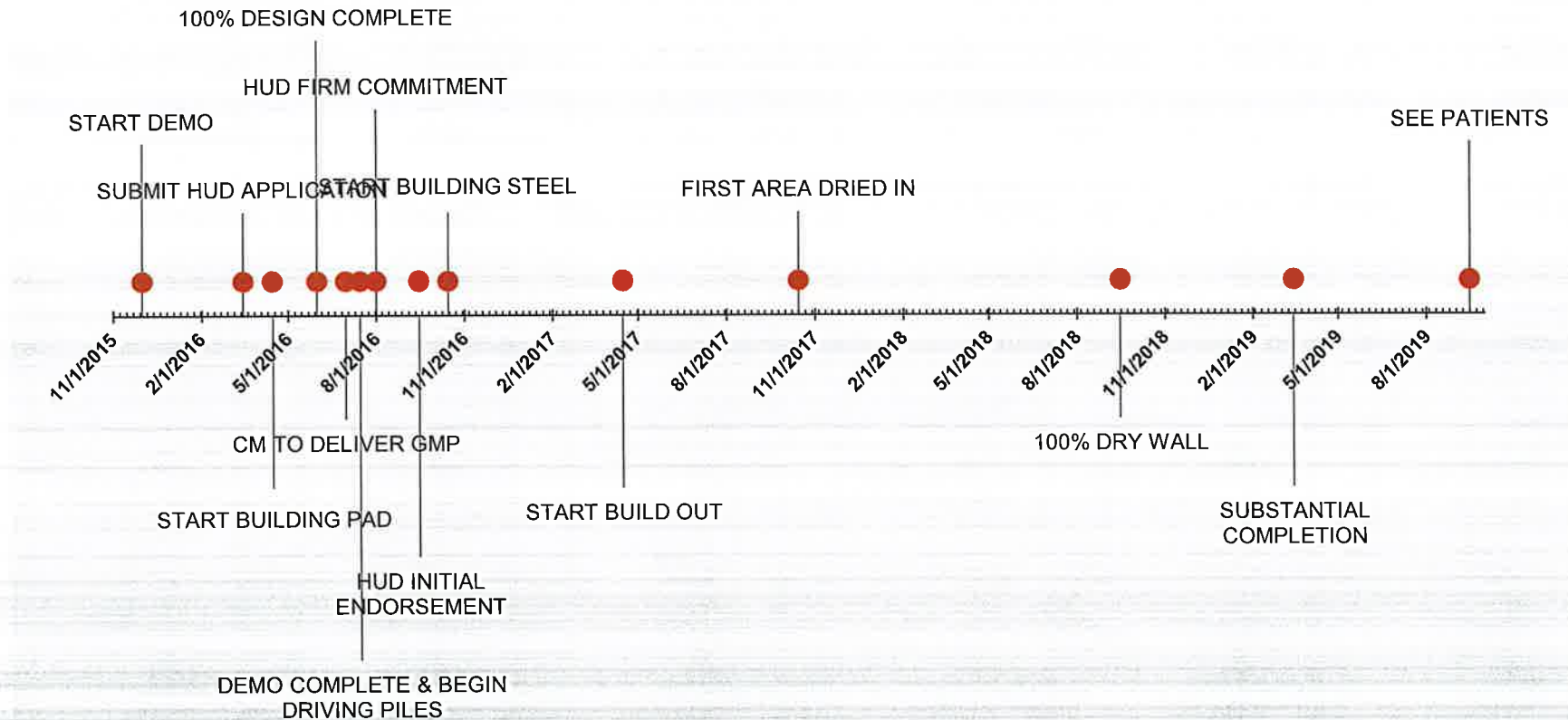
New Children's Hospital / Women's Pavilion

-Stoplight Report

Area	Status	Notes
Design		The reset activities are moving forward and end users are engaged. Many floors are getting final signoff this week. Periop and a few areas in D&T are still under review.
Demolition		Process has begun. Too early to know if any hidden issues will be uncovered with respect to pile location / removal.
Construction		Nothing to report
Timeline		Still forecasting a Q4 opening. However, with the redesign and value engineering activities, most of the slack time has been exhausted.
Project Scope		Teams are doing a good job on constraining scope.
Resources		Continuing to assess resourcing of the project.
Financing (HUD)		HUD application is expected to be submitted in March. Max loan amount must be determined by mid Jan in order to complete financial feasibility study and request BOT approval in Feb.
Budget		We are still tracking to the \$385M figure shared with the BOT.



New Children's Hospital / Women's Pavilion -Project Timeline



New Children's Hospital / Women's Pavilion

-Budget Review

	Original Budget (Feasibility Study)	Initial Design Estimate	Current Estimate (Nov 2015)	Variance
Total new Children's Hospital / Women's Pavilion Costs	\$349.4M	~\$420M	\$384.8M	\$35.4M



New Children's Hospital & Women's Pavilion



Rendering purposes only. Subject for approval.



MUSC Telehealth



SOUTH CAROLINA
Telehealth
ALLIANCE





SOUTH CAROLINA

Telehealth

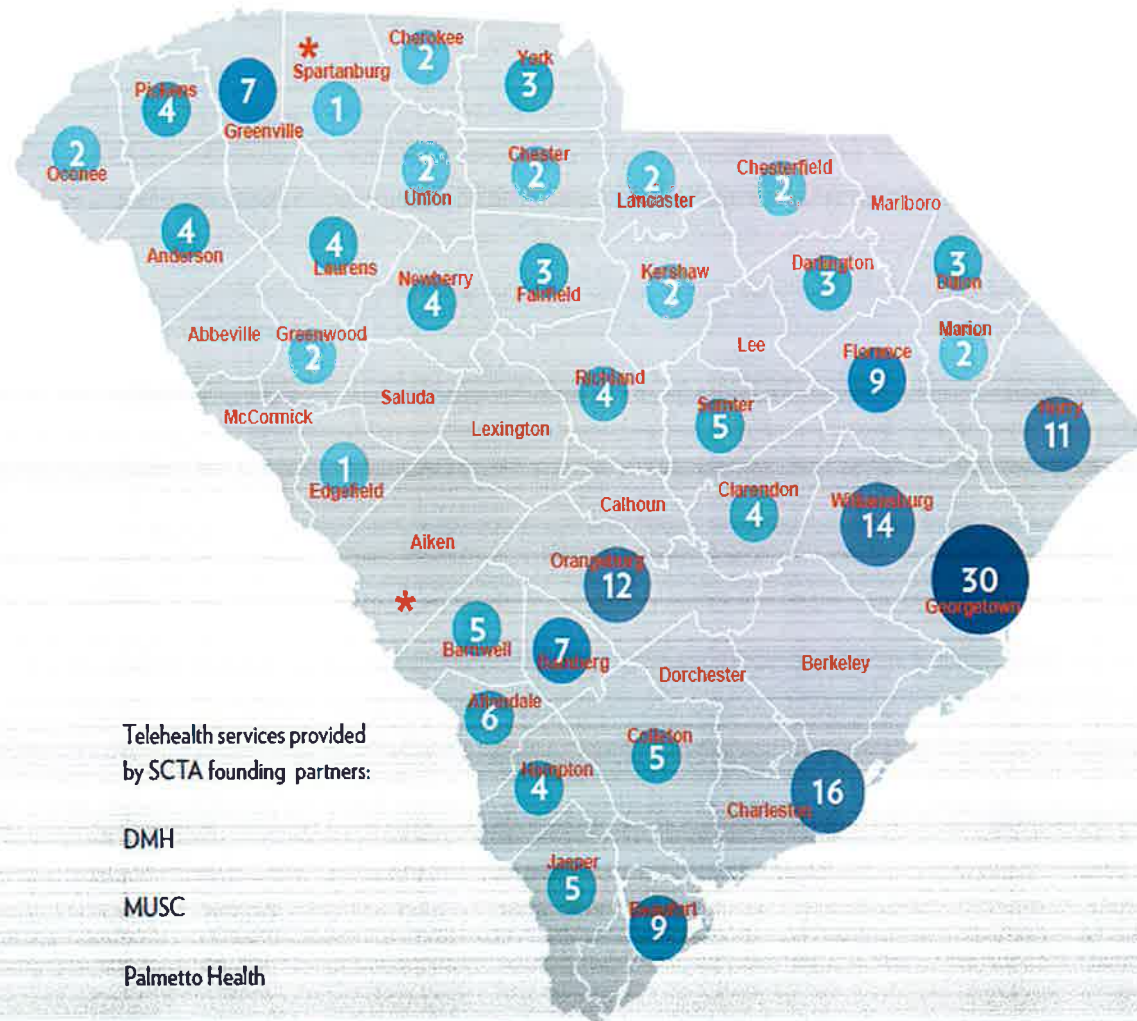
ALLIANCE



What's Possible | MUSHealth.org



Telehealth Connections by County



Telehealth services provided
by SCTA founding partners:

DMH

MUSC

Palmetto Health

AHEC

Greenville Health

* Telehealth services received
from out-of-state

Medical University of South Carolina

MUSCHealth.org



volume & partnerships

12,000

Number of telehealth consultations in the state of South Carolina in 2015

**+
190**

Number of telehealth sites

AHEC

Greenville Health

Palmetto Health

Medical University of South Carolina

Department of Mental Health

+



New Contracts to Develop Regional Services

- Palmetto Health
- Greenville Health System
- McLeod Health (contract negotiations)

Additional providers Joining Alliance

- Roper
- Greenwood Genetics
- Doctors Care

Formal Discussions Pending

- AnMed Health
- Self Regional
- Spartanburg Regional

Inpatient Services- Pediatric Critical Care

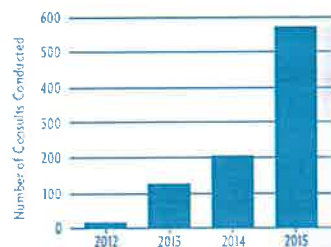
Hospital-to-Hospital Inpatient Specialty Consultations



Program Growth

Outpatient consultation

Annual number of outpatient consultations



From 2014 to 2015, MUSC's outpatient teleconsultation volume increased by 183%.

Adult & pediatric psychiatry outpatient consultation



Pediatric Psychiatrist, Dr. M. Frampton Gwynette, likes the ease of the telehealth consultations.

Correctional facilities



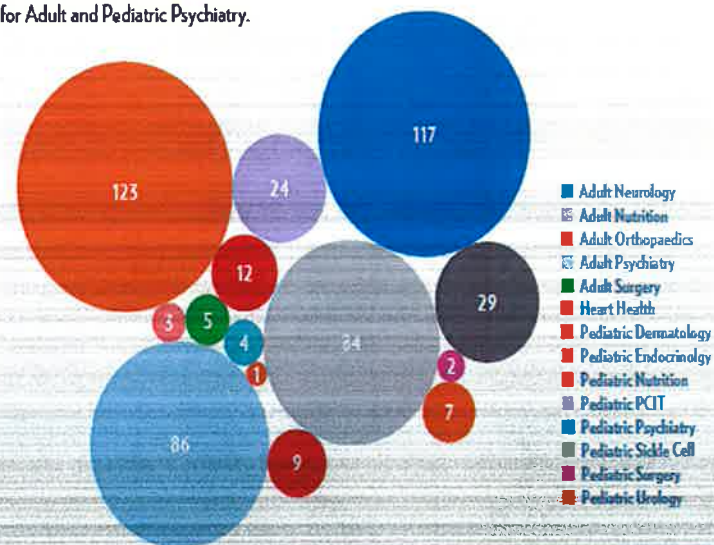
MUSC Telehealth providing training to staff members of Kirkland Correctional Facility Receiving and Evaluation (R&E). All South Carolina prisoners serving a 90-day sentence or more are processed through Kirkland R&E.

MUSC is in the process of establishing telehealth services for four facilities within the South Carolina Department of Corrections (SCDC).

Projected benefits include:

- Decreased transfers to hospitals
- Improved workflow and patient throughput
- Elimination of physical intake backlog
- Informed emergency triage (send or stay)
- Improved management of chronic disease

In 2015, 40% of all outpatient consults conducted by MUSC were for Adult and Pediatric Psychiatry.

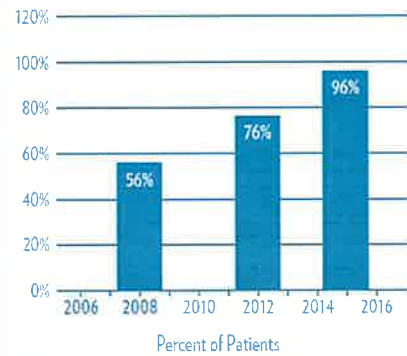


TeleStroke

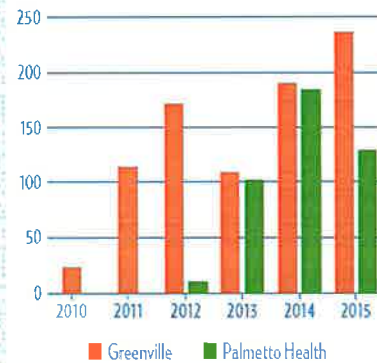
96%

Percent of South Carolina residents within a 60-minute drive of expert stroke care

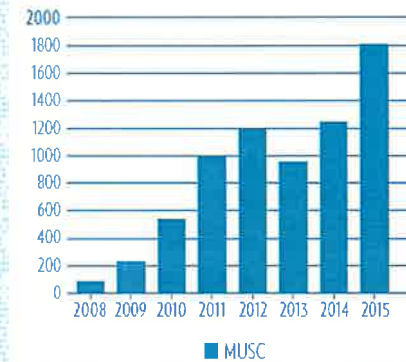
60 Minute Access



Annual Telestroke Consultations Greenville and Palmetto Health

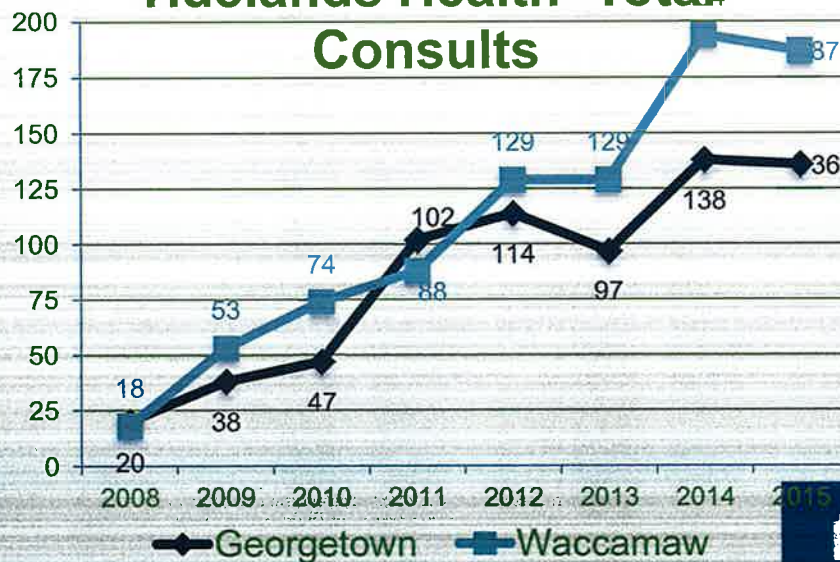


Annual Telestroke Consultations MUSC

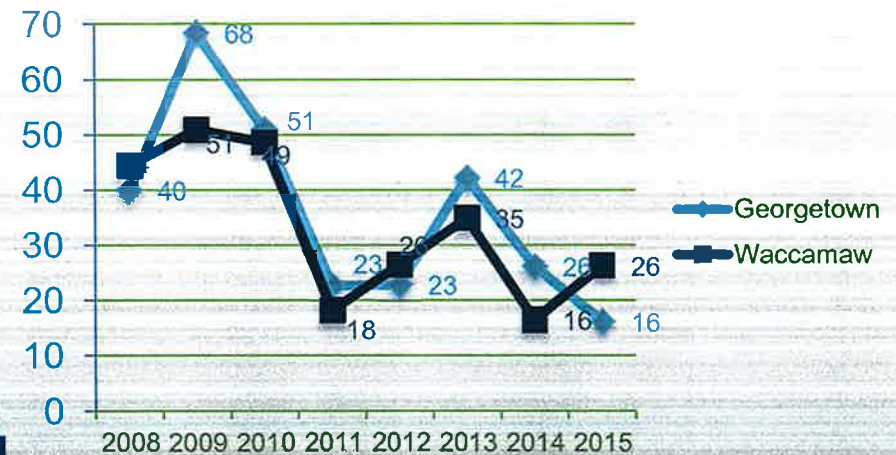


Tidelands Health: Keeping Patients in their Community

Tidelands Health- Total Consults



Number of Transfers to MUSC



School-Based Telehealth



Tina Brown, Hemingway, SC elementary nurse, school-based Telehealth.



2014 School-based
Telehealth (3 sites)



2016 School-based
Telehealth (33 sites)



2017 School-based
Telehealth (43 sites)



TeleICU & ICU Innovations



Benefits & return on investment

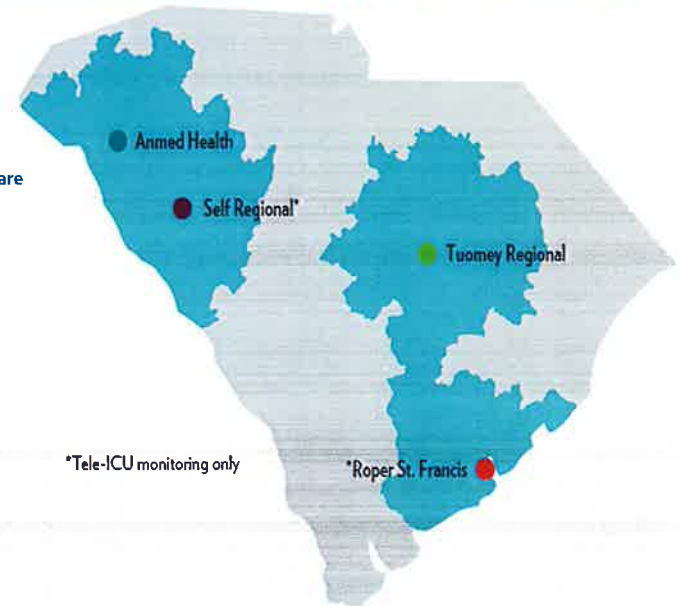
Hospitals with this Tele-ICU model have seen remarkable results

- 40% reduction in mortality
- 25% increase in patient throughput
- 17% increase in patient growth

Dr. Dee Ford monitors patients across the state from the 'bunker' in Charleston.

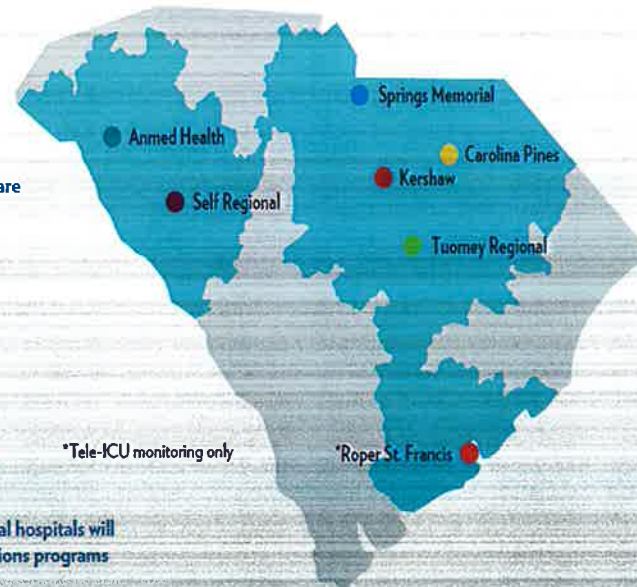
2015

60-Minute Drive time to Remote-Monitored ICU Care



2016

60-Minute Drive time to Remote-Monitored ICU Care



ICU Innovations program offers peer-to-peer education, virtual case conferences and real-time patient consultation.

2016: At least two additional hospitals will be joining the ICU Innovations programs

MUSChealth.org



SCTA Strategies

The Alliance offers to equip and technically support any hospital in the state.

1. Deploy a coordinated, open-access telehealth network in South Carolina.

Palmetto Health and Greenville Health System are contracted to receive funding to expand their telehealth capacities.

MUSC is deploying all of its specialties for hospital-hospital consultations.

2. Understand and effectively respond to the needs of users of telehealth with an emphasis on the underserved and rural.

3. Invest in expanding needed specialty and subspecialty capabilities through telehealth.

4. Conduct statewide education, training and promotion to providers and the public to accelerate and spread adoption of telehealth.

5. Develop a telehealth organization structure that encourages and facilitates statewide collaboration among providers in the delivery of health care, education and research.

Educational offerings will be designed for use by all SC healthcare provider training programs.

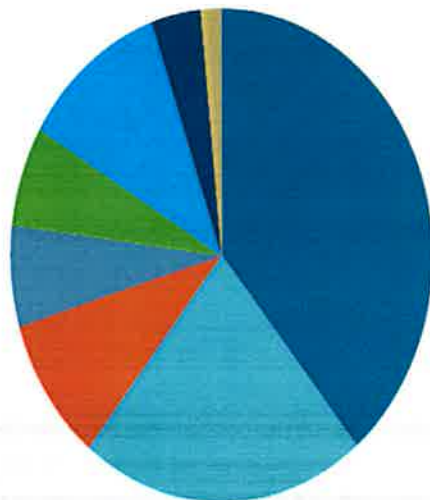
6. Demonstrate to legislators, payers, providers and the public, the impact of telehealth in improving access, quality and affordability.

An Alliance workgroup to include insurers will develop reimbursement policies that go beyond reimbursement parity and leverage the cost savings associated with telehealth.



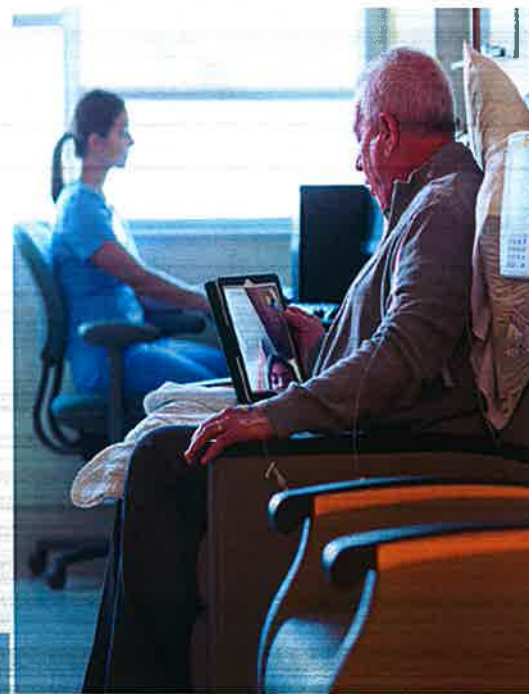
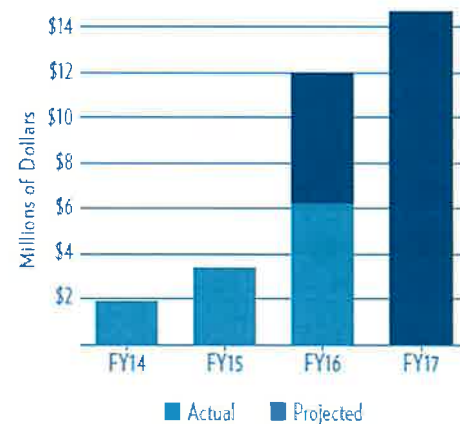
Fund Allocation & Expenditures

Allocation of Funds for the First 24 Months of Operations



- Center for Telehealth Operations & Personnel
- Network Infrastructure - Hardware & Software
- Regionally-based Hub Support
- Marketing & Outcomes Reporting
- mHealth Initiatives
- Clinical Capacity Development
- Small Rural Clinic Support (Palmetto Care Connections)
- Office of Telehealth Education

Actual Expenditures and Projected Expenses



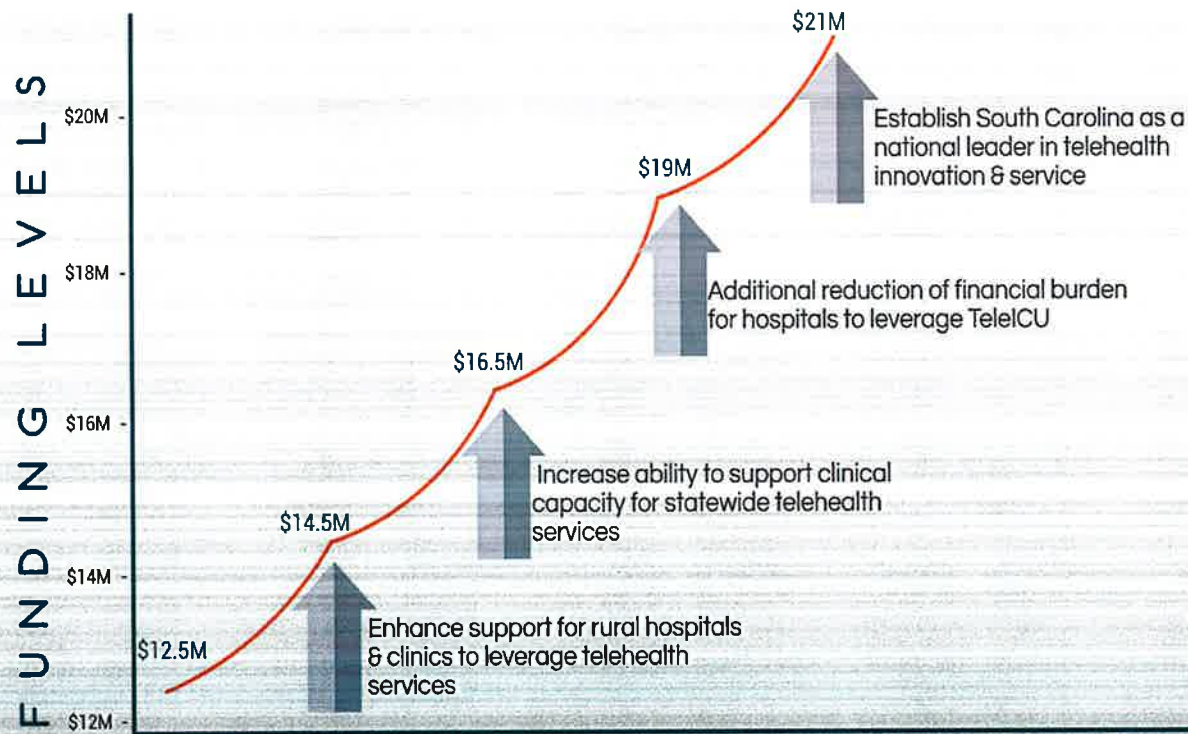
South Carolina Telehealth Alliance Annual Operating Budget

Sustained funding for the South Carolina Telehealth Alliance at the level of \$12.5 million per year will establish our state as a national leader in leveraging this technology to improve the health of all our citizens

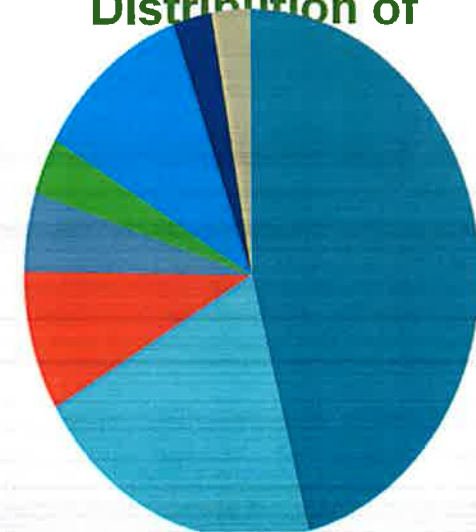
This funding level will allow the Alliance to:

- Maintain collaborative strategy and focus on equitable distribution of optimal care throughout the state
- Maintain a network with continuously updated technologies
- Enable partnering health systems to leverage dedicated personnel and infrastructure
- Grow new and existing services to statewide footprints
- Ensure the workforce of the future is well versed in optimizing telehealth technologies
- Reduce financial risk for SC hospitals to adopt telehealth

Additional Funding



Distribution of



SOUTH CAROLINA
Telehealth
ALLIANCE

sctelehealth.org

MUHA Budget Requests FY2016-17

Request Type	Amount
Women's and Children's Hospital (Bond Bill)	\$20,000,000
Telemedicine <ul style="list-style-type: none">• \$10,000,000 recurring• \$4,000,000 non-recurring	\$14,000,000
James B. Edwards College of Dental Medicine Bond Repayment (recurring)	\$900,000



Provisos

23.1. (MUSC: Rural Dentist Program) The Rural Dentist Program, in coordination with the Department of Health and Environmental Control's Public Health Dentistry Program, is established at the Medical University of South Carolina. The funds appropriated to the Medical University of South Carolina for the Rural Dentist Program shall be administered by the South Carolina Area Health Education Consortium physician recruitment office. The costs associated with administering this program are to be paid from the funds appropriated to the Rural Dentist Program and shall not exceed four percent of the appropriation. The Medical University of South Carolina is responsible for the fiscal management of funds to ensure that state policies and guidelines are adhered to. MUSC shall be permitted to carry forward unspent general funds appropriated to the Rural Dentist program provided that these funds be expended for the program for which they were originally designated. A board is created to manage and allocate these funds to insure the location of licensed dentists in rural areas of South Carolina and on the faculty of the College of Dental Medicine at MUSC.

Action Requested - KEEP



Provisos (Continued)

23.2. (MUSC: Telemedicine) From the funds appropriated to the Medical University of South Carolina for the MUSC Hospital Authority, the Authority is directed to continue the development of its Telemedicine network. The MUSC Hospital Authority shall determine which hospitals are best suited for a Telemedicine partnership.

Action Requested - KEEP

23.3. (MUSC: Rural Access Plan) The MUSC Hospital Authority, in conjunction with the Department of Health and Human Services, shall study how to partner with existing rural hospitals to ensure that these regions maintain access to medical care.

Action Requested - KEEP

